Amendments to the Drawings

The attached sheet of a drawing comprises a new Figure 4 to be added to the present application. This new Figure 4 is a portion of Figure 3 of U.S. Patent No. 5,315,448 to Ryan, wherein the Ryan patent '448 is incorporated by reference in page 2, lines 12-17 of the present application.

Attachment:

Added sheet of drawings, new Figure 4.

REMARKS/ARGUMENTS

By this amendment, claims 63-77 are variously amended and together with new claims 78-124 are submitted for favorable consideration in view of the remarks following.

Applicant includes herewith an additional figure, Fig. 4, to be added to the present application and which is a portion of Fig. 1 of U.S. Patent 5,315,448. The patent 5,315,448 was incorporated by reference in page 2, lines 12-17 of the present application as filed and accordingly the material being added is the material previously incorporated by reference and no new matter is added by the addition of Fig. 4.

In addition, applicant has amended the specification of the present application to include a description therein of the added Fig. 4, wherein the material being inserted is taken from col. 3, lines 63-66, col. 4, lines 6-9 and col. 5, lines 26-31 of U.S. Patent 5,315,448 incorporated by reference. The material is the material previously incorporated by reference and the amendment contains no new matter.

Applicant includes with this amendment a copy of the material incorporated by reference, from U.S. Patent 5,315,448, wherein the copy supplied includes the same material incorporated by reference in the referencing application. The Fig. 4 added is the upper, left portion of Fig. 1 of U.S. Patent 5,315,448 and the material added to the specification is taken from col. 3, lines 63-66, col. 4, lines 6-9 and col. 5, lines 26-31 of U.S. 5,315,448.

The new claims 78-117 and 120-124 have basis in the Figs. 1-3 and in the description associated with the figures in the present application. It follows that claims 78-112 and 120-124 contain no new matter. Likewise, claims 118, 119 are based on the added Fig. 4 and the corresponding amendment to the specification taken from U.S. Patent 5,315,448, along with the Fig. 3 and associated description in the present application, wherein claims 118 and 119 contain no new matter.

In the Office Action, the Examiner objected to the claim 75 on the basis of informalities; rejected claims 63-77 under 35 USC 112, second paragraph as being indefinite; and rejected claims 63-77 under 35USC 102(b) as being anticipated by Ryan (U.S. Patent No. 5,315,448A).

In response to the Claim Objection, applicant has amended claim 75 to read that the "...copy protection signal is received by the one or more device."

In response to the rejections under 35 USC 112, second paragraph, applicant has amended claims 63, 70 and 74 to recite "a recording of the signal material" and has deleted the expression "original" signal material.

Regarding the rejection under 35 USC 102, applicants respectfully submit that the claims 63-77, particularly as amended, along with new claims 78-124, are not anticipated by Ryan (U.S. Patent No. 5,315,448A) (hereinafter Ryan '448) for the reasons presented herein.

By way of illustration, applicants' method and apparatus for controlling copy protection in a digital format includes a mode control command which provides functions not disclosed or intended by the SCPS bit(s) in Ryan '448. In addition, the present invention as claimed provides a separate copy protection configuration command which, in response to the mode control command, provides the capability of changing the type of copy protection applied to a digital (or analog) video signal. That is, the copy protection configuration command comprises a programmable plurality of configuration bit patterns each of which identifies a respective type of copy protection signal.

More particularly, applicants' mode (byte) command provides not only "on/off" commands but also provides operating mode commands in the form of selected bits which determine which components, that is, which type, of the copy protection signals, made available by the separate copy protection configuration control bit pattern(s), are to be enabled. This defines the type(s) of copy protection which is applied to the video signal. (See the application page 9, lines 6-10.) An example of various operating modes determined by the mode command is shown in Table 1 in page 17 of the instant application. As readily seen, the mode command selects one or more components of the configuration (byte) command such as, for example, the location of pseudo sync and AGC pulses, locations of lines with phase shifted color bursts, H or V sync amplitude reduction or deletion, etc., which constitute the particular form of the copy protection signal being applied to the signal material. Ryan '448 fails to disclose such a mode control signal capable of the many controls shown in Table 1. In fact, there is no intention for such a multiple function mode command in Ryan.

Ergo, Ryan '448 inter alia fail to disclose, suggest or intend a command which is the equivalent of applicants' second control signal, i.e., a copy protection configuration control signal (configuration bit pattern). There is no motivation or intent in Ryan to include a configuration bit pattern(s) such as applicants, since Ryan applies an anti-copy process with

specific, preselected parameters which are not changed and/or updated in the manner of the instant invention.

That is, applicants' second, and separate, copy protection configuration bit pattern(s), defines the form of the copy protection signal which is to be used to protect the signal material. (See the application page 9, lines 6-9.) The configuration bit pattern(s) generally is stored in the encoder IC(20) in the set-top box (10), FIGs. 2 and 3 of the application. Alternatively, the configuration bit pattern(s) also can be transmitted with the mode control signal.

In addition, the configuration bit pattern(s) provides an additional feature not disclosed or suggested in Ryan '448. That is, the configuration bit pattern(s) is programmable (locally or remotely) to allow ongoing updating and thus optimization of the configuration of the copy protection signal, for example to the particular equipment in the consumer marketplace. It follows that the configuration bit pattern(s) allows the service provider to periodically download new and different configuration bit patterns to each set-top box or to multiple set top boxes. Ryan '448 has no use for and fails to remotely suggest such a configuration byte command, i.e., separately stored or transmitted programmable copy protection configuration bit pattern(s).

Keeping the above discussion in mind, regarding independent claims 63, 70 and 74, Ryan '448 fails to disclose a method or apparatus for providing programmable copy protection of signal material involving one or more copy protection signals. Likewise, Ryan '448 fails to disclose programmable configuration bit patterns indicative of respective one or more copy protection signals. Further, Ryan '448 fails to provide the one or more copy protection signal in response to one or more corresponding configuration bit pattern selected by the mode control command. The above features are variously recited in the claims 63, 70 and 74.

The passages cited by the Examiner as anticipatory of claims 63, 70 and 74 in cols. 7 and 8, as well as Fig. 1 of Ryan '448, fail to disclose or suggest the features of the present invention set forth in these claims and enumerated in the previous paragraphs. To illustrate, col. 7, lines 55-58 simply states that providers of video material may choose to prevent any copying of material by setting an anti-copy bit to high. Col. 7, lines 34-54 discusses a "SCPS" (scheme) embodied in a SCPS bit detector (54), wherein detection of a SCPS bit sets to high the anti-copy bit in the digital stream. Further, col. 8, lines 3-15 discusses that the anti-copy bit would prevent copying by detection thereof by the AC bit detector (32) in a second recorder, whereby copy

protection is provided on a bit basis using an assigned bit (e.g., SCPS bit(s)) on a field-by-field or frame-by-frame basis.

It follows that the above-mentioned passages referenced by the Examiner fail to disclose or suggest the programmable configuration of the claimed invention in claims 63-77, or in the new claims 78-124 as discussed below. Likewise Ryan '448 fails to suggest applicants' mode control command which not only provides an on/off function but which also provides the capability of selecting one or more components of the copy protection configuration; that is, of the configuration bit patterns representing different types of copy protection as illustrated for example in Table 1 of the present application.

To continue, regarding claim 64, Ryan '448 fails to suggest "transmitting the one or more copy protection signal..." and applying same "...to the signal material in response to the one or more configuration bit pattern selected by the mode control command." The passage in col. 7, line 67 to col. 8, line 9 only mentions enabling ACP generator to apply only one predetermined ACP signal to the output (24). Different copy protection signals are not suggested.

Regarding claim 65, Ryan fails to suggest "storing the one or more copy protection signal..." and applying same "...to the signal material in response to the corresponding configuration bit pattern selected by the mode control command." The passage in col. 7, lines 41-48 fails to disclose storing and then applying a selected copy protection signal via a corresponding configuration bit pattern. The SCPS bit only enables setting the copy protection bit to high to add the anti-copy bit to the digital stream.

Regarding claim 66, contrary to the Examiner's conclusion, Ryan '448 does not disclose a programmable copy protection concept and does not suggest or intend configuration bit patterns representing respective types (components) of copy protection signals. Col. 7, lines 36-54 describes a SCPS (scheme) wherein a bit detector (54) detects the SCPS bit(s) if present in the digital video signal at terminal 14. If the SCPS bit is detected then the bit adder (60) adds (or sets to high) the actual anti-copy bit in the digital stream. Ergo, the SCPS bit acts as an on/off switch which enables or disables copy protection. Ryan '448 makes no mention of different programmable copy protection configuration bit patterns or associated copy protection signals.

Regarding claim 67, as argued with respect to claims 65, 66, Ryan '448 fails to disclose or suggest programmable configuration bit patterns which identify or represent respective copy

protection signals, wherein one or more of the configuration bit pattern(s) is selected by the mode control command.

Regarding claims 68 and 69, as discussed above, Ryan '448 does not suggest or intend a configuration bit pattern which identifies respective copy protection signals.

Regarding claims 71-73, the same arguments presented above with respect to claims 64-69, concerning programmability and plural copy protection signals identified by respective configuration bit patterns (see Table 1) and selected by a mode control command (see Table 1), also apply to claims 71-73. Contrary to the Examiner's conclusion, the passage in col. 7, lines 43-54 do not disclose a configuration bit pattern corresponding to respective copy protection signals nor means for programming the patterns.

Likewise, regarding claims 75-77 and new claims 78-79, Ryan '448 fails to disclose or suggest plural configuration bit patterns corresponding to plural, respective copy protection configurations to be applied to a signal material.

Regarding new claims 80, 82, 97 and 110, the arguments and discussion presented above with respect to the claims 63, 70 and 74 apply equally to new claims 80, 82, 97 and 110. Namely, Ryan '448 fails to disclose or intend programmable copy protection configuration bit patterns for selecting one or more specific copy protection signals in response to a mode control command which is capable of selecting the desired configuration bit pattern, or patterns. The SCPS bit(s) of Ryan '448 is/are only capable of turning on or off a single type of copy protection. Contrary to the Examiner's conclusions, Ryan '448 does not disclose or intend a plurality of different copy protection signals selectable via corresponding configuration bit patterns, as recited in the amended and new claims.

Regarding new claims 83 and 84, Ryan '448 fails to disclose or suggest programmable copy protection waveforms wherein a remote device includes an encoder circuit that provides a programmable copy protection signal and or programmable copy protection information in response to one or more control bits. In addition, the discussion and arguments presented above with respect to claims 63, 70 and 74 also apply here.

Regarding new claims 88, 104 and 120, Ryan '448 fails to disclose or suggest an apparatus (a wireless apparatus) for processing video (or audio) signals, or receiving digital images, comprising: a digital decompression circuit, a memory circuit having one or more software applications and or an application program interface, a video (or audio) encoder circuit

and or copy protection control registers, wherein the circuits are embedded and wherein the copy protection signal or circuitry may be activated or deactivated. In addition, the discussion and arguments presented above with respect to claims 63, 70 and 74 also apply here.

Regarding new claims 93 and 95, Ryan '448 fails to disclose or suggest a portable media (memory store) that includes or provides data to one or more sites, wherein information is provided that includes site identification via a communication link of various kinds, and wherein a compressed data signal is sent from a central system back to a site after receiving the information from the site.

Regarding new claims 118 and 119, Ryan '448 fails to disclose or suggest a method or apparatus for processing an analog video signal, comprising supplying the analog video signal to an analog to digital converter, and to an analog copy protection signal detector which detects at least a part of a copy protection signal, wherein the analog video signal is converted to a digital video which may include an anti-copy bit, and wherein the digital video signal subsequently is supplied to a CPU and a memory having software programs, whereupon the CPU runs one or more of the software programs.

The various claims which are dependent on the original and new independent claims 63, 70, 74, 80, 84, 88, 93, 95, 97, 104, 110 and 120 recite further characteristics of the inventive features of the respective independent claims, and are believed to not be anticipated by Ryan '448 for the reasons presented above.

Thus, applicant respectfully submits that the original, amended claims 63-77 and new claims 78-124 are in condition for allowance, which action is earnestly requested.

If there are any questions about this paper or the associated application, please contact the undersigned at the telephone number given below. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

Please charge any required fees due to this amendment to Deposit Account No. 13-0762.

Respectfully submitted,

MACROVISION CORPORATION

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Dated: 4/11, 2007

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APPENDIX